

CLAIM:

1. A computer program product for updating a computer file used by a computer, said computer program product comprising:

- 5 (i) tag detecting code operable to detect within data received by said computer a tag indicative of existence of an updated version of said computer file, and
(ii) update triggering code operable upon detection of said tag to trigger downloading from a predetermined source to provide said updated version of said computer file for use by said computer.

10 2. A computer program product as claimed in claim 1, wherein said tag is embedded within a header portion of said data.

15 3. A computer program product as claimed in claim 1, wherein said data is an e-mail message.

20 4. A computer program product as claimed in claim 1, wherein said predetermined source provides one of said updated version of said computer file or modifying data for modifying said computer file currently used by said computer to form said updated version of said computer file.

25 5. A computer program product as claimed in claim 1, wherein said tag includes a version identifier and further comprising version comparing code operable to compare said version identifier with data indicative of a version level of said computer file to determine if an updated version of said computer file exists.

6. A computer program product as claimed in claim 1, further comprising tag inserting code operable to insert into data being processed by said computer a tag indicative of a version level of said computer file currently used by said computer.

30 7. A computer program product as claimed in claim 6, wherein said tag inserting code does not insert a tag if said data already includes a tag indicative of the existence of said version level of said computer file currently used by said computer or of the existence of a more recent version level of said computer file used by said computer.

8. A computer program product as claimed in claim 1, wherein said computer file is a computer virus definition data file.

5 9. A computer program product as claimed in claim 1, wherein said computer file is a computer virus detection engine program file.

10 10. A computer program product as claimed in claim 1, wherein said computer file is an anti-virus computer program file.

11. A computer program product as claimed in claim 1, wherein said tag includes data indicative of a version level of one or more of:

- 15 (i) a computer virus definition data file;
(ii) a computer virus detection engine program file; and
(iii) an anti-virus computer program file.

12. A computer program product as claimed in claim 1, wherein said tag includes parameters indicative of one or more processing operations previously performed upon said data.

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13. A computer program product as claimed in claim 12, wherein said one or more processing operations are anti-virus scanning operations.

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A1 14. A computer program product as claimed in claim 1, wherein said predetermined source is contains an updated version of said computer file provided by a supplier of said computer file.

15. A computer program product as claimed in claim 1, wherein said predetermined source is remote from said computer.

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16. A computer program product as claimed in claim 11, wherein said predetermined source is accessed via an internet link.

17. A computer program product as claimed in claim 1, wherein said tag data is encrypted tag data and said tag detecting code includes decryption code for decrypting said encrypted tag data.

5 18. A computer program product as claimed in claim 1, wherein said update triggering code waits for an initial update delay period following detection of said tag before starting download of said updated version of said computer file.

10 19. A computer program product as claimed in claim 1, wherein if download of said updated version of said computer file fails, then said update triggering code waits for a failure delay period before retriggering downloading of said updated version of said computer file.

20 20. A computer program product as claimed in claim 15, wherein said failure delay period is a pseudo-random value determined by said update triggering code.

21. A computer program product as claimed in claim 1, wherein said update triggering code does not trigger an update if said tag indicates that said updated version of said computer file is more than a predetermined number of versions of
20 ahead of said computer file currently used by said computer.

22. A computer program product comprising:

(i) tag inserting code operable to insert a tag within data indicating a version level of a computer file used by a first computer, said tag being operable to
25 trigger an update of an older version of said computer file used by a second computer when said data is received by said second computer.

23. A method of updating a computer file used by a computer, said method comprising the steps of:

30 (i) detecting within data received by said computer a tag indicative of existence of an updated version of said computer file; and

(ii) upon detection of said tag, triggering downloading from a predetermined source to provide said updated version of said computer file for use by said computer.

24. A method as claimed in claim 23, wherein said tag is embedded within a header portion of said data.

5 25. A method as claimed in claim 23, wherein said data is an e-mail message.

26. A method as claimed in claim 23, wherein said predetermined source provides one of said updated version of said computer file or modifying data for modifying said computer file currently used by said computer to form said updated version of
10 said computer file.

27. A method as claimed in claim 23, wherein said tag includes a version identifier and further comprising the steps of comparing said version identifier with data indicative of a version level of said computer file to determine if an updated
15 version of said computer file exists.

28. A method as claimed in claim 23, further comprising the step of inserting into data being processed by said computer a tag indicative of a version level of said computer file currently used by said computer.

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29. A method as claimed in claim 28, wherein a tag is not inserted if said data already includes a tag indicative of the existence of said version level of said computer file currently used by said computer or of the existence of a more recent version level of said computer file used by said computer.

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30. A method as claimed in claim 23, wherein said computer file is a computer virus definition data file.

31. A method as claimed in claim 23, wherein said computer file is a computer virus search engine program file.
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32. A method as claimed in claim 23, wherein said computer file is an anti-virus computer program file.

33. A method as claimed in claim 23, wherein said tag includes data indicative of a version level of one or more of:

- (i) a computer virus definition data file;
- (ii) a computer virus detection engine program file; and
- (iii) an anti-virus computer program file.

34. A method as claimed in claim 23, wherein said tag includes parameters indicative of one or more processing operations previously performed upon said data.

35. A method as claimed in claim 34, wherein said one or more processing operations are anti-virus scanning operations.

36. A method as claimed in claim 23, wherein said predetermined source is contains an updated version of said computer file provided by a supplier of said computer file.

37. A method as claimed in claim 23, wherein said predetermined source is remote from said computer.

38. A method as claimed in claim 37, wherein said predetermined source is accessed via an internet link.

39. A method as claimed in claim 23, wherein said tag data is encrypted tag data and said step of detecting includes decrypting said encrypted tag data.

40. A method as claimed in claim 23, further comprising the step of waiting for an initial update delay period following detection of said tag before starting download of said updated version of said computer file.

41. A method as claimed in claim 23, wherein if download of said updated version of said computer file fails, then further comprising waiting for a failure delay period before retriggering downloading of said updated version of said computer file.

42. A method as claimed in claim 41, wherein said failure delay period is a psuedo-random value determined by said update triggering code.

43. A method as claimed in claim 23, wherein an update is not triggered if said tag indicates that said updated version of said computer file is more than a predetermined number of versions of ahead of said computer file currently used by said computer.

44. A method of operating a computer comprising the step of:

(i) inserting a tag within data indicating a version level of a computer file used by a first computer, said tag being operable to trigger an update of an older version of said computer file used by a second computer when said data is received by said second computer.

45. Apparatus for updating a computer file used by a computer, said apparatus comprising:

(i) tag detecting logic operable to detect within data received by said computer a tag indicative of existence of an updated version of said computer file; and

(ii) update triggering logic operable upon detection of said tag to trigger downloading from a predetermined source to provide said updated version of said computer file for use by said computer.

46. Apparatus as claimed in claim 44, wherein said tag is embedded within a header portion of said data.

47. Apparatus as claimed in claim 44, wherein said data is an e-mail message.

48. Apparatus as claimed in claim 44, wherein said predetermined source provides one of said updated version of said computer file or modifying data for modifying said computer file currently used by said computer to form said updated version of said computer file.

49. Apparatus as claimed in claim 45, wherein said tag includes a version identifier and further comprising version comparing logic operable to compare said

version identifier with data indicative of a version level of said computer file to determine if an updated version of said computer file exists.

50. Apparatus as claimed in claim 45, further comprising tag inserting logic operable to insert into data being processed by said computer a tag indicative of a version level of said computer file currently used by said computer.

51. Apparatus as claimed in claim 50, wherein said tag inserting logic does not insert a tag if said data already includes a tag indicative of the existence of said version level of said computer file currently used by said computer or of the existence of a more recent version level of said computer file used by said computer.

52. Apparatus as claimed in claim 45, wherein said computer file is a computer virus definition data file.

53. Apparatus as claimed in claim 45, wherein said computer file is a computer virus detection engine program file.

54. Apparatus as claimed in claim 45, wherein said computer file is an anti-virus computer program file.

55. Apparatus as claimed in claim 45, wherein said tag includes data indicative of a version level of one or more of:

- (i) a computer virus definition data file;
- (ii) a computer virus detection engine program file; and
- (iii) an anti-virus computer program file.

56. Apparatus as claimed in claim 45, wherein said tag includes parameters indicative of one or more processing operations previously performed upon said data.

57. Apparatus as claimed in claim 56, wherein said one or more processing operations are anti-virus scanning operations.

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Au } 58. Apparatus as claimed in claim 45, wherein said predetermined source is contains an updated version of said computer file provided by a supplier of said computer file.

5 59. Apparatus as claimed in claim 45, wherein said predetermined source is remote from said computer.

60. Apparatus as claimed in claim 45, wherein said predetermined source is accessed via an internet link.

10 61. Apparatus as claimed in claim 45, wherein said tag data is encrypted tag data and said tag detecting logic includes decryption logic for decrypting said encrypted tag data.

15 62. Apparatus as claimed in claim 45, wherein said update triggering logic waits for an initial update delay period following detection of said tag before starting download of said updated version of said computer file.

20 63. Apparatus as claimed in claim 45, wherein if download of said updated version of said computer file fails, then said update triggering logic waits for a failure delay period before retriggering downloading of said updated version of said computer file.

25 64. Apparatus as claimed in claim 63, wherein said failure delay period is a psuedo-random value determined by said update triggering logic.

65. Apparatus as claimed in claim 45, wherein said update triggering logic does not trigger an update if said tag indicates that said updated version of said computer file is more than a predetermined number of versions of ahead of said computer file
30 currently used by said computer.

66. Apparatus for inserting a tag within data, said apparatus comprising:

(i) tag inserting logic operable to insert a tag within data indicating a version level of a computer file used by a first computer, said tag being operable to

trigger an update of an older version of said computer file used by a second computer
when said e-mail is received by said second computer.

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